

THE NORTHWEST

Technocrat

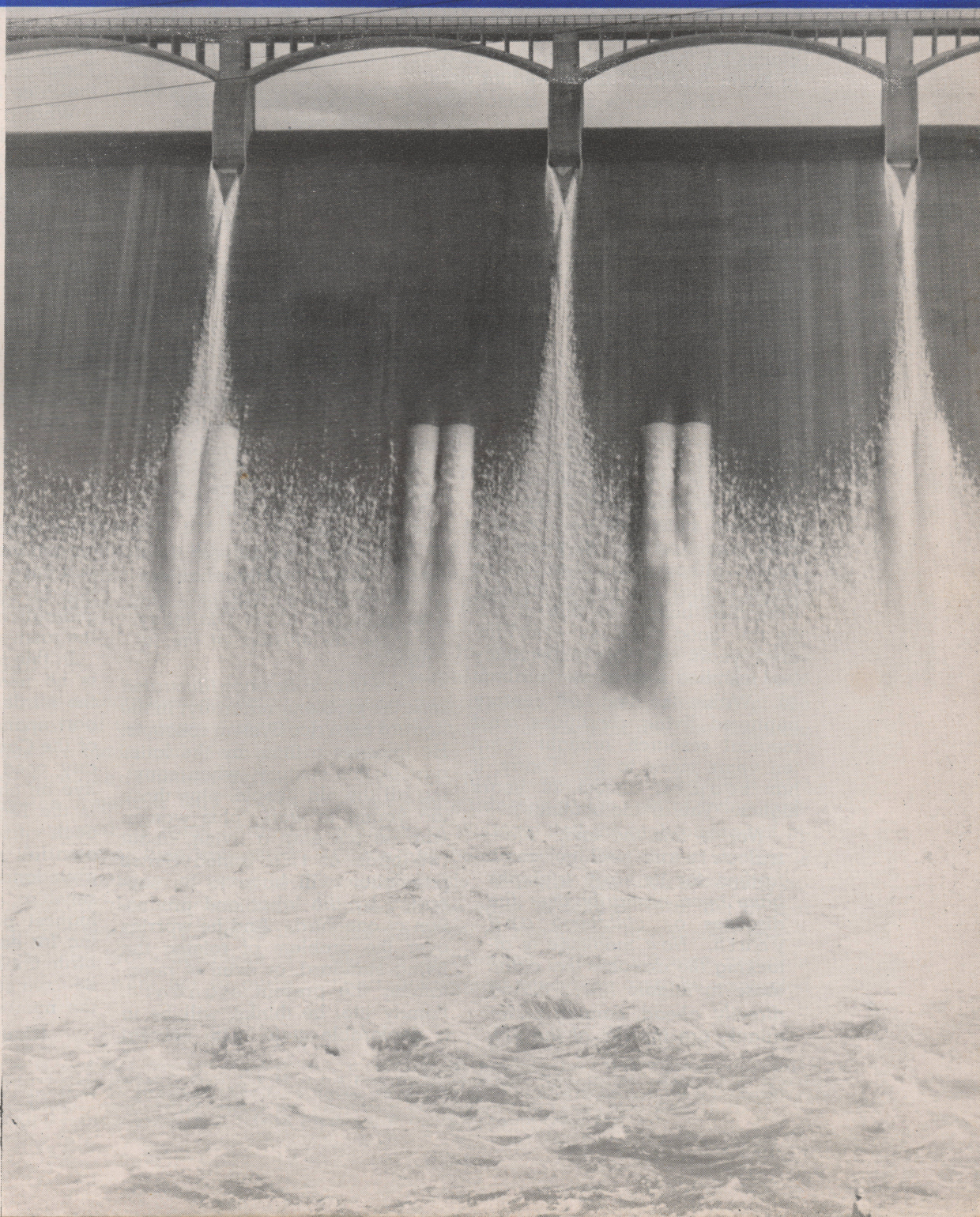
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Editorial ---

Old Folks at Home

A GREAT change in our society has occurred almost unnoticed, and we have made no preparation for the consequences which are overtaking us. So says an editorial in *Science Illustrated* for December. It then presents some startling statements which actually have even more social significance than the editor claims for them. These statements deal with our life expectancy here in North America, and the editor asks:

If tomorrow some doctor were to announce that he had an indisputable method of adding 20 more years to the life of every American, would you think him a benefactor—or would he be giving our country the worst headache in history?

According to an announcement recently made by the National Office of Vital Statistics, the average life expectancy at birth, based on 1946 data, is now 70.3 years for white females, and 65.1 for males; a general average of 67.7 years.

Harking back to the 'glorious days' of Greece and Rome we find that life expectancy then was only a little over 20 years. Stepping up to the time when this country was founded, *Science Illustrated* states, life expectancy then was barely 30 years because, although families were large, a third to a half of the children died before the age of ten. By the 'good old days' of a hundred years ago life expectancy had climbed slowly up to about 40. Within the next half century improved living conditions and medical research brought it up ten years more, to 50. Today, it has zoomed almost 20 years higher. The article continues:

Nor is this the end. Medical science will go much farther, for its early triumphs have been primarily over the diseases of childhood and youth. Now medicine is attacking the diseases that claim those in middle life And directly ahead, coming under attack, are the ills of the eld-

erly: cancer, arthritis, and heart disease By the year 2000, the life expectancy may easily reach 80 or 90 years . . .

Look at the facts. In 1900 there were close to 3,000,000 persons in our country aged 65 or older—less than four percent of the population. In 1940 there were 9,000,000, or about seven percent. By 1980 there will be 22,000,000, or about 11 percent. One person out of every nine will be over 64 years old.

What shall we do with them all? Or rather what shall our children then do with us? For we who talk about this today will be the oldsters of the future.

The editor of *Science Illustrated* sees the problem, naturally, in the light of his Price System concepts. He foresees a time, by the latter part of this century, when counting all the old people, plus those too young to work, plus women who do not earn a living, about two-thirds of the United States population will have to be supported by the labor and production of one-third. And he worries over the problem of raising the living standard, or even of maintaining the present standard. Family life, he thinks, will be in a deplorable state, with several

generations of old folks and older folks living in 'unwieldy family groups fraught with antagonisms.'

If we cannot solve the housing problem today, what will it be like then? Will all these old folks have to live in 'homes,' supported by public or private charity? Should 18-year olds get the vote so young votes will stay in balance with oldsters? Will old-age pensions someday start at 75 or 80 as men stay healthy longer? These are questions which bother the Price System leaders.

What a sorry muddle these concepts lead to! There just isn't any solution within the Price System.

The editor concludes:

We can never turn the tide backwards . . . we must see what is in store, and energetically support every move made by science or government which will undertake to prepare for and meet those problems. After all, it's our future, and our long life. We want it to be good.

Amen! So do we! And for that reason we challenge the editor to make good on his own advice by energetically supporting a very advanced 'move made by science' which has already prepared for and met those problems. There is a very definitely scientific solution for this problem of the older generations. Technocracy has had the answer for a long time.

In this land of abundance there is no need or reason to saddle the burden of the old folks' support upon the backs of the youth of the Continent. Neither is there any need to make the old folks live on charity, public or private. In the Technate of North America each citizen will have his or her own full share of the Continental abundance, as a function of citizenship. This will assure the highest possible standard of living for each and every one from birth until death; and it will not be connected in any way with the number of hours or years of

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FEBRUARY 1949

Business Teeter Totter

The ability of American factories to produce far beyond the ability of the populace to buy is now giving business tycoons and government impresarios headaches of more than ordinary severity.

JUST what the New Year will bring forth in the over-all picture of national economy as it concerns details is anybody's opinion. That means that no one knows for sure. There are too many imponderables.

Technocracy Inc. is making no detailed predictions at this time. The general predictions made in the early 'thirties as to trends remain sound. Long-term trends continue toward the inevitable demise of the Price System. The technological trends toward ultimate elimination of human energy in production and distribution continue in a steady progression. The ability of American production equipment to supply the demands of the citizens of this Continent has been demonstrated. The ability of American factories to produce far beyond the ability of the populace to buy is now giving business tycoons and government impresarios headaches of more than ordinary severity.

THE DANGER AHEAD

All connected with the management of the national economy are aware of the danger ahead. Frequently statements are made, and given due prominence by the press, that unless certain measures are taken the American way of life will disappear to be replaced by some form of totalitarian control. At the same time, suggested measures aimed at the continuation of our present social order tend toward that very totalitarianism which is so greatly feared. This lends itself to the surmise that the brave defenders of the 'American Way of Life' were not so much

concerned with the danger of totalitarianism as they were with the grave question as to who would be the Totalitarian.

The Congress recently deceased bent every effort to expand the power of concentrated money wealth and was prepared to further consolidate the plans toward that end when its plans and personnel makeup were disturbed by the election.

It is evident to all Technocrats, and to many others who have the intelligence to evaluate recent social trends, that elections offer no solutions to our economic problems. The election did demonstrate that the people do not succumb 100 percent to the propaganda of the press and radio.

Appraisal of the measurable facts that affect our economy indicates that the Democratic party will, indeed, need a magic formula if they are to continue the present alleged prosperity and avoid economic depression.

Citations in this article are from the *Wall Street Journal* for the reason that it is the most authoritative medium for the expression of the views which the businessman and the politician respect.

As of the first of the year all statistical data shows a slight decline in the cost of living, indicating as of this date that the high plateau of inflation has been reached and that a decline is most probable. It is true that such a leveling occurred in the early months of 1946, but at that time the effect of expanding government spending had not been felt. It does not seem probable that government spending can be expanded

enough by the new Congress to more than hold the level for an unascertainable period of time.

A year ago production had not yet caught up with demand. Then, there was no sharp shift from a sellers' to a buyers' market. There were not extensive distress spots in the picture as are present this New Year.

The *Journal* of Dec. 14, 1948, lists some of the soft spots: (Summation, not quotation.)

Lumber producers fret over the slow sales and climbing inventories. Inventories are 81 percent above a year ago; unfilled orders are 38 percent below a year ago; No. 3 grade two-by-fours wholesale price was \$55 a year ago, now \$30 per thousand feet. Biggest headache for the lumber dealers is a large inventory of high priced logs, which cost them \$45 per thousand as against a prewar price of \$12. Recent closure of mills is called seasonal and due to adverse weather. Maybe!

Fats and oils of which there was a pronounced shortage in the war are now surplus in relation to demand. Wholesale prices a year ago and today follow: cottonseed oil, 28c, now 17c; soybean oil, 25c, now 17c; peanut oil, 28c, now 18c; lard, 29c, now 17c. Output of these commodities was the highest in peacetime history, 10,300 million pounds, 500 million pounds higher than last year. The war record of 1943-44 was 11,000 million pounds.

ANOTHER SPUD SURPLUS

Potatoes again are surplus on the buyers' market. Spud history repeats in that the government is spending the taxpayers' money to keep the cost to taxpayers high. As of December 14 latest reports were that the government had bought 75 million bushels at a cost of \$103 million, a new record, and probably not the total figure. Highest preceding figure was in 1946 when the government propped the price to you and me to the tune of \$91 million. However, farmers will get less next year as the government has lowered the ante from 90 percent to 60 percent of parity. But don't figure on lower price at your market next year, for the government support of 90 percent will continue on other farm commodities.

The following on eggs is a direct quotation from the *Journal*.

Eggs accumulate in the federal price support basket. So far this year, to keep prices paid farmers at legally required levels, the Government has scooped up about

28 million pounds of dried eggs. More buying is likely if market price weakness continues. What to do with eggs perplexes officials in charge. Last year foreign countries helped drain off such stocks, but now export demand—despite ECA—has faded away.

Indicative of the buyers' market is the increase of meat scrap output. To please the customers butchers are trimming away more scraps. In the first nine months of 1948 butchers trimmed away 421,000 tons as compared to full year totals of 403,000 in 1947 and 393,000 in 1946.

MARY'S LAMB TO MEET PIGS' FATE?

One minor soft spot is in the date market. Prior to the war much of the dates consumed by Americans were imported. California growers who supplied 90 percent of the dates produced and sold in the United States produced between 5 and 7 million pounds. The war cut off imports and groves were expanded until this year they produced 27 million pounds. Meanwhile foreign growers are shipping dates again to the tune of approximately 25 million pounds, last year. This left a 5 million pound carry-over of American dates. Prices to the grower dropped from 30c to 5c a pound. It cost the grower 7 to 7½ cents a pound to produce the dates. The government took 1,500,000 pounds to ship abroad (note: we imported 25 million pounds from abroad) but there is now 1,200,000 pounds in storage in excess of the 1948 crop.

Mary had better watch her little lamb. The fate of the little pigs may be awaiting him. In 1939 four out of every five pounds of wool going into United States apparel came from American raised sheep. Now only four out of every ten pounds comes from American sheep.

Department store sales were down in relation to 1947. Last minute Christmas rush changed this picture somewhat, but quantity of sales definitely was down.

The Baltimore and Ohio railroad commenced a system-wide lay-off because of the decline in coal loadings.

The *Journal* of December 17, in a dispatch written by Richard H. Syring from Portland, Oregon, states that plywood demand and prices are sliding downward. He quotes a Los Angeles dealer as saying: 'All of a sudden everyone is loaded with the stuff.' Inventories are piling up in dealers'

yards, at the mills, and in the wholesale pipeline. Production has been prodigious. 1,900 million feet were produced the past year, 100,000,000 more than the war time peak and 300,000,000 more than last year. That plywood soon may be worth less than its weight in gold is indicated by the fact ten new plants now are blueprinted or being built, half to be finished by next year.

The soft spot in the economy not particularly stressed by the *Journal* is the technological displacement of man power. So far this item could easily be overlooked, for employment has hung about the 60,000,000 mark during the past year. This is because production was not limited to the demands of the market. The high employment figure will be difficult to maintain. Two items in the *Journal* of December 17, 1948, indicate the trend. One is a new product, Scotch Top put out by the Scotch Tape producer, the Minnesota Mining & Manufacturing Co. This is a finish for interiors normally lathed and plastered or wallpapered. The product is applied by a paint spray gun. The cost will be about \$1.00 per square yard as against \$2.70 for lath and plaster and \$4.00 for paint or wall paper. The *saving is in labor*. Two men finished a five room house inside in a day with a half-day for the outside. After a carpenter has put on the lath it takes four men five to seven days to plaster the same area. It takes two men four to five days to paint the outside. Thus two men do in a day and a half the work performed by six men in four or five days by the present method.

The other article is titled 'Rural revolution on wheels pushes food production to record peaks.'

3,000,000 tractors pulling 500,000 combines and 225,000 corn pickers now work the farms. That is double the number used in 1940. This amounts to a 35 percent increase in number of machines in the past eight years.

The aim of the Marshall plan was to syphon off excess American products to Europe, especially machinery that would enable Europe to get on its feet and start producing for its own needs. One item included in the plan was farm machinery. The *Journal* of December 24, 1948, states that farm production in Europe is recovering so speedily that surpluses of some tools is in sight. Demand may be met by 1950 which will mean a headache to the manufacturers who are planning a long period of export.

The *Journal* of the same date states that a bill has been drafted for presentation to the new Congress providing for a stamp plan similar to that in operation in the 'thirties. This indicates that at long last, the low income element of America will get a chance at the farm surpluses. It also indicates that the new administration is planning to follow the Roosevelt pattern in the coming depression.

On December 17 the *Journal* stated: 'More Businessmen Seek Loans from U. S. to Finance Operations!' It seems bankers lack confidence in the soundness of American business to provide necessary finances. In view of a probably \$2 billion deficit for the current fiscal year, the bankers may have something. At least it demonstrates that the only fairly safe creditor is the government.

While there are many soft spots in the United States economy, it is unwise to predict an economic collapse in the immediate future. The one 'if' in all predictions has been that certain results would ensue should existing conditions continue. The one great 'if' has been war or the threat of war.

WAR OR NO WAR

Whether or not war does develop, it is possible to continue the war scare to the end that a tremendous program of deficit financing will be permitted by the American people, even should taxes be increased far beyond the present level.

That the time of the collapse of the Price System is uncertain is no excuse for the abandonment of plans to meet that eventuality. Rather, Technocrats and all other thinking residents of the North American Continent should increase their efforts in preparation for the coming event. The desperate effort of businessmen and the government to preserve the existing social control will exhaust all possibilities of carrying on the economic life on this Continent. The suddenness of the break and the helplessness of government along traditional lines to meet the everyday needs of producing and transporting the necessities of life to the populace will place an added burden on those who know of the only manner by which catastrophe can be avoided.

If you prefer that America avoid disaster, join Technocracy Inc. at once and help prepare for that time, now imminent, when a change of social control becomes mandatory.

—Charles T. Hickey, 12247-3.

The Road to Tomorrow

We don't need to consult fortune tellers or soothsayers in order to learn what is most likely to happen in the future, for science has compiled a chart for us that is much more accurate than anything the mystics could ever dream up.

THE human being's desire to know what is in the future or what his destiny may be is demonstrated by the interest and even faith so many place in fortune tellers and soothsayers. Science has debunked or exposed them times without number, but people still support them in the hope of learning something about the future.

We don't need to consult fortune tellers or soothsayers in order to learn what is most likely to happen in the future, for science has taken the available facts and data and compiled a chart for us that is much more accurate than anything the mystics could ever dream up. The physical trends that indicate America's destiny are nowhere better portrayed than in the accompanying chart, which is used by Technocracy to show the relationship between man-hours and production. The importance of this chart cannot be grasped without concentration and study.

BOOTS AND SHOES

The heavy black line indicates our overall production of goods of all kinds, be it pairs of shoes, yards of cloth, or automobiles. The dot-and-dash line shows the number of man-hours required to produce one unit of anything—shoes, cloth, automobiles, etc. The broken line simply means employment, in any and all fields.

Let us now consider the boot and shoe industry in relation to the chart, as an example. Some of the tools of the shoe trade are known to date back to 1400 B. C. These were the awl, the knife, and some chisel-like scrapers. To these were later added the hammer, lasts, pincers, and stones for buffing and finishing. Such was the status of the shoe industry at the beginning of our chart in 1830. The ratio shown on the chart is twelve to one and for purposes of this discussion we can assume that it did take approximately 12 hours to make one pair of shoes. Taking the work of fifty shoemakers in making one pair of shoes each we have a total of

600 hours. On the chart, then, we would have 12 on our unit hour line, 50 for the physical production line, and 600 on the employment line.

The picture would not vary more than a very little until about 1860, when the relationships of the different lines would begin to change. As this is a physical process it is of course measurable and we can expect to find a physical explanation for any change that takes place. For the early change in the top line we find that two machines were invented. In 1847 Elias Howe invented a sewing machine that was successful. Previous attempts by others had failed because they could not sew a lock stitch. Howe's machine was met with prejudice and opposition at first, for as usual, man was fighting social change. It was several years before he could get it into use, and the shoe industry was among the first to take it up. They used it to stitch the uppers of their shoes.

In 1857 B. F. Sturdevant invented a pegging machine that was successful. Now we can understand why the top line of our chart is starting to descend; the shoemaker has some machines to help him with his work.

By 1895, we notice, the top line is down to the 11 mark; it now requires only 11 hours to make a pair of shoes instead of 12. There are two reasons why the change was not greater at that time. Not only were the first machines cumbersome and in need of improvement, but they were also scarce. However, a look at the production line shows that production has doubled.

MORE PEOPLE WEAR SHOES

We now look at the employment line and we find that it has more than doubled. There are more people working at the shoe-making industry. One of the major reasons for this is the increase in population. Also, more people are wearing shoes.

A little farther along, in 1905, the upper line starts to descend rapidly, because our machines

have become more numerous and they have been speeded up and can produce more units. When, in about 1941, the line finally starts to level off, it takes only two hours to make a pair of shoes; physical production is 13 times what it was, and the third line, Total Man-hours, has lost most of its importance.

Here are some figures from the Census Bureau on our shoe industry in 1941: In that year 890 factories produced 498,381,625 pairs of shoes, and this does not include rubber footwear. The machine is almost an automatic robot now.

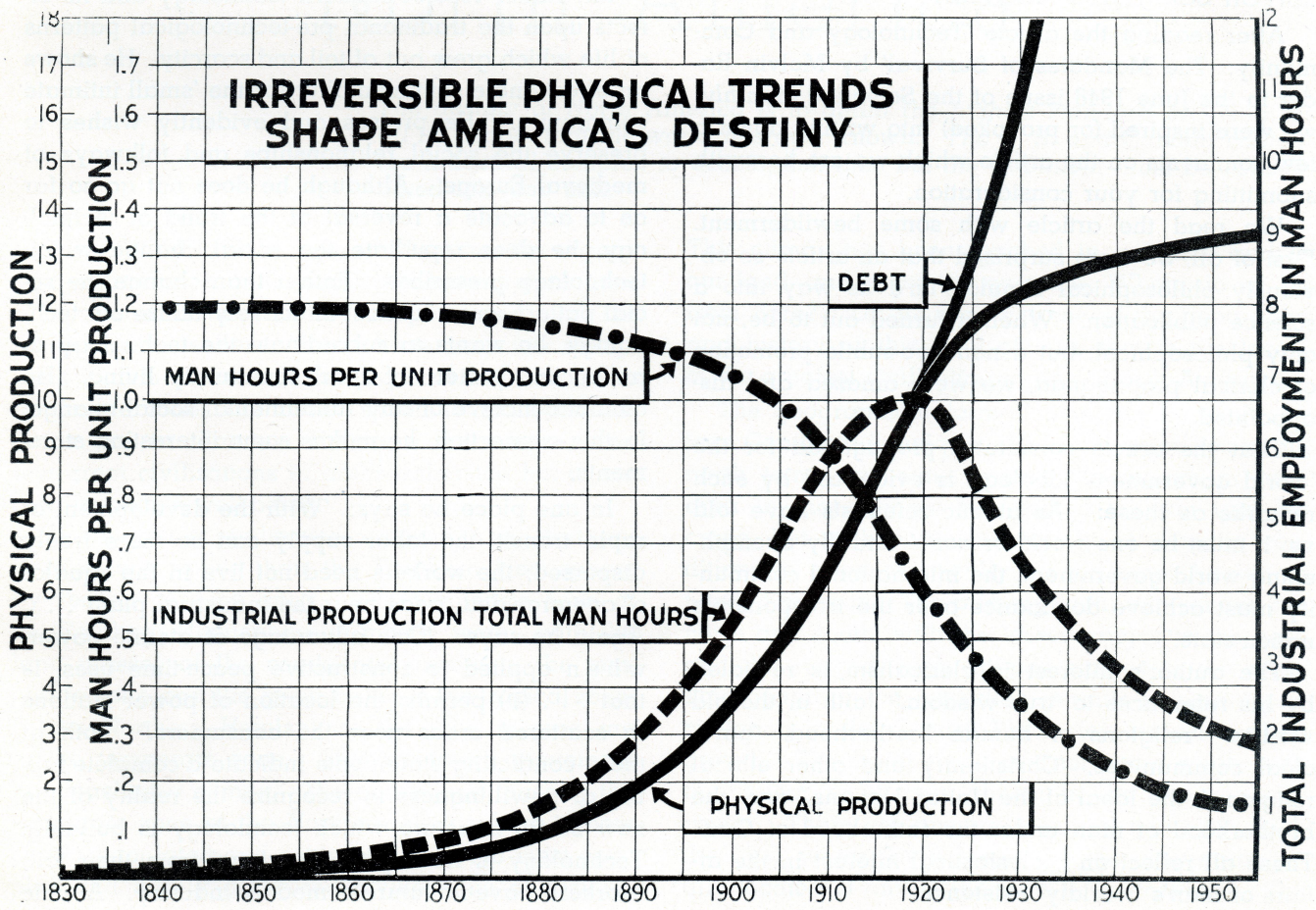
Several crossings have taken place on the chart in a very short time; what do they mean?

When 'unit hours' crossed the employment line about 1910 it means that, although the hours per unit were less, there were enough units produced to keep employment high. When it crosses 'physical production' four years later, it means we are making things faster yet, and lots of them. But when employment, or 'Total production total man-hours' and 'physical production' cross in 1919 and

go their individual ways, it is the first time in history that it has happened. The total man-hours line began to decline. Although total production was still rising, the rate of increase was not enough to off-set the continued decline of man-hours per unit. And ever since then, the trend in total man-hours has been downward.

The changes in production and employment shown on this chart are the greatest social changes in history. These have been physical changes. They also have changed every other phase of our social system. They have created a dilemma for our Price System economists.

Like Columbus, who didn't know where he was going when he started, didn't know where he was when he got there, and didn't know where he had been when he got back, the economists didn't know what was going to happen, what was happening, nor what had happened. Only a scientific survey explained the events that had occurred. In a mad attempt to save the system and to stem the inevitable day of reckoning, business created more debt.



The debt line followed the production until about 1915, when it began pulling away, leaving an ever-increasing space between the volume of debt and the volume of production on which it is based and on which its validity depends.

By now they realize, these proponents of the Price System or 'free enterprise,' that if their beloved system is going to remain in existence those two lines, 'Debt' and 'Physical production,' must be united again as they were for so long a time. But there is no way in which this can be done. The Price System is doomed.

It is easy to see that we are being kept in darkness by the prevarications, innuendoes and deceit of the press, lecture platform, and radio. But this is not the stygian darkness of Milton, the blind poet,

where no ray of light could ever enter; it is more the dark of a moonless night, in which even a small bonfire shows quite plainly.

There are a large number of those bonfires aglow on the North American Continent now—the many Sections of Technocracy Inc.—where prevarications, innuendoes and deceit shrivel up under the presentation of facts uncovered by the research of science. Whether they will continue to glow until the dawn of a new day in the New America depends on you; for, like other organizations, Technocracy needs members to expand the light from these fires. Yes, Technocracy needs you and your help, but not nearly so much as you need Technocracy and its design.

—J. T. Ness, 12247-3.

Critical Comment

EDITOR SCIENTIFIC MONTHLY:

After reading the article 'Technology and Community: The Mandates of Survival' by Melvin Rader in the June 1948 issue of the *Scientific Monthly*, we were inspired (or provoked) into writing down a few comments on the article which we are herewith submitting for your consideration.

We read the article with some bewilderment. First of all, we were surprised that an article so obviously philosophical should find its way into a science publication. When it turned out to be, not only philosophical, but a none-too-subtle promotion of clerical propaganda, we were amazed and disappointed.

That the article constitutes propaganda for the 'world government' ideology is evidenced by such remarks as these: 'As atomic scientists have told us, it must be one world or none' and 'By strengthening world government, the international community must achieve dominance over the irresponsible nation-state.'

The author's interest in clericalism is revealed by his references to 'true wisdom,' 'faith in the old verities,' 'religions of human brotherhood,' 'parochial communities,' 'Christianity and other ethical religions,' 'the ideal of the United Nations,' and 'the brotherhood of man under the fatherhood of God.' These all reflect an ecclesiastical interest in the affairs of man's 'worldly' existence.

Mr. Rader resents modern technology and its effects upon the traditional pre-technological patterns of life which grew out of toil and scarcity. He shows an effectionate sentimentality for the 'small intimate community.' He praises and evidently wishes to preserve the social relationships and folkways of medieval Europe. Although he does not go so far as to advocate a reversal of the trend of technology, he does repudiate the social change which technology prescribes. Rather than change the social pattern so as to most effectively utilize our technology, he wants to subordinate the technology to an ancient pattern of rural community living. He cannot conceive of any fundamental social change. In this connection, he makes some interesting statements.

In one place he says: 'With the development of rapid transit, the labor supply can be more freely dispersed; the workers need not live in the squalor of overcrowded areas near the industrial plant . . .' Again he says: 'One advantage of atomic power, when applied to constructive peace-time uses, is that . . . (it) permits the location of power stations in scattered areas near the consumers.' Both of these conflicting statements indicate a complete failure or unwillingness to recognize the reality of the new social structure which technology is building. Technology is freeing the 'workers' from their toil; 'workers' have no future in modern industry. Atomic

power invites or even compels more-centralized power-stations, not decentralized stations. Long range transmission cables will most probably serve to overcome the dependence of a community on local power sources.

The author admits that our technology needs control, but says that this control must not be administered by private business, by the military, by an 'irresponsible political crew,' nor by technical men. He does not exclude a clerical control. He makes the peculiar statement (condensed) that the scientists and engineers 'cannot and should not' control our technology, as advocated by 'Technocracy,' because they 'are not powerful enough'—they 'do not have enough money.' He demands that the technology be put under control of the 'whole community' and be administered by 'democratic' means under 'a powerful world government.'

Could it be that Mr. Rader would have us en-

dorse a 'one world' order similar to that which existed in western Europe prior to the Thirty Years War? Could it be that he would want to establish throughout the world that international and supranational 'unifying spiritual force' which reigned supreme over the lives of the individuals of western Europe until the time of its disruption by the Treaty of Westphalia? The whole tone of the article has that same jesuitical logic which pervades the rest of the world propaganda for a 'federal world government.'

Mr. Rader has challenged us with this scholarly philosophical dissertation clothed with scientific and technologic raiment. We now challenge his premise and suggest that the article be placed in its fuller context with the other propaganda along the same line.

—Wilton Ivie, C.H.Q.

North America

The destiny of North America is to attain the highest standard of living for all its people that the world has ever known. The U. S. and Canada contain the industrial complex to accomplish this, but the Continent must be consolidated into one unit.

THROUGHOUT the ages civilization, the organization of human society, has marched ever westward through the temperate zone of the Northern Hemisphere. There have been few exceptions to this movement for physical reasons. The temperate zones are better suited to man and his crops due to climate. Therefore there have been few great civilizations in areas either too hot or too cold for man's well-being.

The march of civilization occurred in the Northern Hemisphere rather than the Southern Hemisphere by reason of geography. The temperate zone of the Southern Hemisphere is mostly water, with the land masses of the continents narrow in the temperate zone and the great bulks in the tropical zone. In the Northern Hemisphere the land masses are in the temperate zone. This westward movement has reached a climax. The entire land mass of the temperate zone of the Northern Hemisphere is now highly populated and contains one of the most complex and highly organized civilizations of history.

This climax has been reached in our time and in our land, and poses the question, 'Where do we go from here?' Let us review some of the geography and history of this land of ours that is the locale of the greatest civilization to date, North America.

The geographical formation of the North American Continent is unique. The land mass lies in the north temperate zone, giving the maximum land area in that climate best suited to man and his crops, but with sufficient variety of climatic conditions to grow practically all the crops known or needed by man. The primary mountain ranges run north and south, with the lesser ranges to the east, and the rugged, high altitude ranges to the west. This geographical formation permits sufficient precipitation in the Central Plains for extensive plant growth. The major rivers run north and south, with the Father of Waters almost in the geographical center. There are numerous inland lakes of which the fresh water Great Lakes are the most strategically located of any in the north temperate zone. The

northern part of the Continent is numerously dotted with inland waterways. A topographical map of the earth will readily show the superiority of this Continent in regards to surface water resources.

The Pilgrim Fathers landed at Plymouth Rock in the year 1620. At that time the Continent of North America was in a maximum state of balance in regard to the Hydrologic Cycle. This means that the forces of production and the forces of destruction were equal. In its wilderness state the Continent averaged 12 inches of top soil. Half of the land area was in forests, 40 percent was in grasses and shrubs, and 10 percent was natural arid dessert of the Southwest and frozen wastelands of the far North. The rivers and creeks ran clear and cool, and were populated with an abundance of fish. There were 170 species of birds, wild game, including bison, beaver and foxes, and assorted fur bearing animals abounded.

This vast wilderness was peopled by less than 2 million Indians, it has been estimated. These Indians were a part of the dynamic balance of the wilderness. They had an agrarian hand-tool economy. Their subsistence was derived primarily from hunting, with bow and arrow; fishing, with spears; and gathering wild fruits and nuts. Their agriculture was very limited and very primitive. There were some warring tribes whose habit was to live by plunder, but most tribes had a domestic culture and sought natural refuges for their homes. Regardless of their culture, the Indians loved their land, and they had no incentive to destroy it. They hunted game only in sufficient quantities for food and hides for their own use. The Indian said, 'I belong to the land.'

'THE LAND BELONGS TO ME'

The white men who came to America left the land of their birth but brought their ideas and concepts with them. The ideologies of the new land became the same as those of Europe. The new inhabitants had no patriotism for the new land; only for their institutions. And today we sing of "The Land of the Free, and the Home of the Brave!" The accent is still on the institutions and the land is only the vessel which holds them. The white man says, 'The land belongs to me.'

Our forefathers have been correctly referred to as the most destructive human beings on earth, and the history of the building of the civilization of

North America can well be described as the rape of a continent. They literally sheared the forests with axe and fire, with no thought of use for most of the timber. They wantonly slaughtered the buffalo and game with two purposes, to get the hides and pelts, and to destroy the food supply of the Indians. They left the carcasses to rot in the sun, and the plains became dotted with white skeletons of once magnificent beasts.

MONEY CROPS

The settlers planted 'money crops,' such as tobacco, cotton, corn and later wheat, not for their own use, but to sell. They wore out soil often in as short a time as three years. Then they would move on to destroy more forests to plant crops and destroy the soil, with never a thought to conservation. The policy was to cut out, burn out, wear out, and get out. This false concept that the land and resources were limitless became a part of our folklore. Eventually there was no place to go any more, and some conservation was attempted, but only to permit an extended period of exploitation.

By 1776 the settlers decided not to cut in a foreign government on the profits of their exploration. They declared their independence, formed a government of their own, and fought a war. Then they really went to work conquering, developing, and populating more and more land.

Simultaneously with this period of human history something new was born. James Watt developed the first effective steam engine, and set off a chain reaction of machines which used energy other than human for their motive power. Fortunately for the new technology and the new nation the two basic resources for the fabrication and operation of the new machines were at hand. Abundant high-grade iron ore and coal deposits lay in the easily accessible mountain ranges of the eastern part of the Continent where the white people happened to settle. So the new nation and the new technology developed together, moving ever westward at an accelerating rate. The technology helped to conquer the forces of nature and the further and faster they marched, the more technology was needed.

The Governments of the United States and Canada offered free grants of land to individuals and corporations who would develop the land and its resources, or extend transportation or other technological facilities. First free farms and free resources,

then guaranteed profits, subsidies, and relief. It has always been the policy of these Governments to underwrite 'free' enterprise in these countries.

The results of the march of civilization on the Continent of North America are both awful and awe-inspiring. The forests of primitive America are almost gone. The timber stands of our mountain tops are mostly second, or even third growths, and exist only under the protection of our National Forest Service. The long and short grasses of the plains, valleys, and foothills have been plowed up or over-grazed. The soils which they once protected, are in many instances, gone with the wind and the rain. In the spring the rivers and creeks, dangerously low or completely dry during the dry seasons, rush angrily with the yellow burden of top soil, down the mountainsides to wreak their vengeance on the populated areas below which pollute the waters with their sewage. Except for a few scavengers, fish can no longer exist in most of the rivers of America, or even in the sea at the mouths of the rivers. The average of 12 inches of top soil is now less than 9 inches. We are losing top soil at an average rate of one inch every ten years. It takes nature 500 years to build one inch of top soil under ideal conditions. We have increased the desert areas 100 percent in 100 years. Too frequent irrigation and cultivation of slopes has resulted in the leaching of minerals and other essentials from the soil, resulting in foods of poor quality.

CONSERVATION IS IMPERATIVE

The disastrous effects of land abuse are most severe in Central America and Mexico due to the soil composition, extreme slopes, severe rains, type of vegetation, and the tendency of rapid population expansion which constantly increases the demands upon the soil. The least erosion has occurred in Canada due to the fact that the 10 million Canadians are clustered near the 49th Parallel. The northern parts of the Country are virtually undisturbed by man. The United States has some erosion comparable to that of Central America, but some of the soil due to its composition or structure has been able to withstand the continued onslaught of the plow.

You, perhaps, may say that the results of the exploitation of the resources of this Country are to be overlooked in view of the wonderful industrial economy and comparable high standard of living that we have attained. And you may be correct except

for the fact that we have reached the point where we can no longer continue exploitation at the previous rate, but must practice utmost conservation of the natural resources, or be faced with chaos and eventual extinction.

Americans, with the use of modern technology, have accomplished an almost equal destruction of their land and its resources in 200 years that it has taken the peoples of other countries thousands of years to accomplish. Nature does not recognize man-made institutions. She cannot change her laws to meet the laws of man. If man does not develop institutions in accord with natural laws, nature will destroy his institutions and the civilization he builds with them.

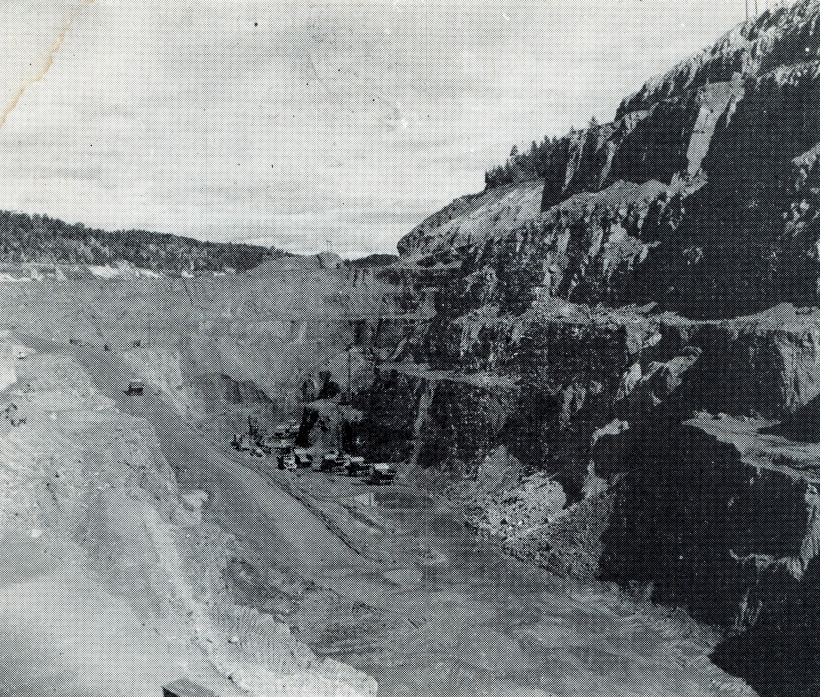
AREA OF THE TECHNATE

The destiny of North America is to attain the highest standard of living for all its people that the world has ever known. The United States and Canada contain the industrial complex to accomplish this, but the Continent must be consolidated into one unit. This unit must include more than just the land area of the North American Continent. Technocracy states that, in order to contain a sufficient proportion of tropical lands for a complete balance of supplies, and to obtain a maximum defense and security, the North American Technate must comprise all of the following: All the land and water from the North Pole to the equator, from the International Date Line on the west to the mid-Atlantic on the east, including the Samoan Islands, Hawaii and Galapagos Islands; the northern tip of South America, embracing Venezuela, Colombia, Dutch, British and French Guianas; the West Indies, Iceland, and Greenland.

This Continental area contains 19 percent of the world's land area; 9 percent of the world's population; the lion's share of the world's mineral resources; over 1 billion 400 million installed horsepower of prime movers; and sufficient scientists, technicians and trained personnel to rebuild and operate the Continent in a manner which would be the glory of the ages.

We have everything to gain by simply admitting that the institutions and folkways of the past have nothing to offer the America of tomorrow—except chaos—and installing the Technate of North America before it is too late. Learn the facts! Investigate Technocracy, Now!

—Iva B. Foster, 11935-1.



Steep Rock iron mine in Eastern Canada. In open pit mining, too often rock below economic grade is sent to waste dumps, thus eliminating its possible future use.

—Photo by Imperial Oil Limited.

SINCE the beginning of the century conservation of mineral resources has been the basis of political battles and scientific controversy. During the present strained international situation it has been in the forefront of discussion because the public is beginning to realize the extent to which our industrial life and national economy are dependent upon mineral resources. It was a rude shock to learn that we did not have enough metals and minerals during World War II, and an even ruder shock to realize that there is also a postwar mineral shortage.

Conservation of mineral resources is particularly important because metals and minerals are irreplaceable assets which have often been wastefully exploited. They do not grow like forests or wheat. There is no mineral 'crop.'

If we study the development of large industrial nations we see that their rise coincided with their utilization of mineral resources—notably that of coal and iron. Coal supplied energy that made the wheels go around, and the wheels were made of steel. Nations highly endowed with both fuel and iron are the ones that attained predominance over their competitors; that have risen into great trading and industrial nations. It is no accident that large manufacturing centers sprang up in Central England, in the Ruhr, and around our own Great Lakes; for there coal and iron meet. Lacking these substances, nations became largely agricultural and so

Our Dwindling Mineral Reserves

mineral self-sufficiency came to be one of the chief goals of economic sufficiency. So insatiable was the demand for minerals that in the last quarter century we have consumed more of our mineral resources than in all preceding history.

At the beginning of the late war we were, of all the nations, most richly endowed with mineral resources. We and the British Empire together owned and controlled three-fourths of the world mineral resources. France, through her colonies, and then Russia, stood next on the list. Despite our own abundance we would not have been able to manufacture either guns or ships or planes had we not had access to foreign minerals. Under the stress of war we discovered that we lacked some five dozen strategic minerals. Rare industrial minerals had to be discovered, developed, and procured in quantities never before dreamed of. Radio, radar, and atomic needs created demands for many minerals that we used to think of only as adornments for mineral museums.

IRREPLACEABLE MINERALS LOST

We had to turn to fifty-three countries for our mineral supplies, involving long and hazardous voyages at the expense of ships, factories and manpower. We had to find and bring in 5,500,000 tons of copper, lead, and zinc alone, at a cost of \$240,000,000—three metals of which we thought we had plenty—and manganese at the rate of 1,500,000 tons a year.

The faster we grow industrially, the faster we exhaust the very basis of this industry, since minerals are irreplaceable assets. A recent Congressional report gives startling estimates of our present mineral resources, calculated in years of life based

upon the average rate of consumption in the ten year period from 1935 to 1944. Of the forty-one most important minerals and metals considered, the reserves of fifteen of them should last half a century or more. Three others should last from 33 to 39 years. The remaining twenty-three have a life of less than 25 years, and of these, nine have a life of less than ten years, and for eight of them there are no reserves. Among them are the important base metals, zinc 20 years, copper 19 years, and lead ten years, with manganese four years and tungsten two years. Of the remainder we have none. Now these are telling figures, if they are dependable. These figures demonstrate forcibly the need of conservation.

These figures may be somewhat exaggerated. We have witnessed changes in mining methods that have reduced costs; the invoking of chemistry and physics in improvements in ore beneficiation and smelting; the development of more scientific methods of ore finding; and the development of substitutes; all of which have permitted the utilization of lower grades of ore.

A BROAD CHALLENGE

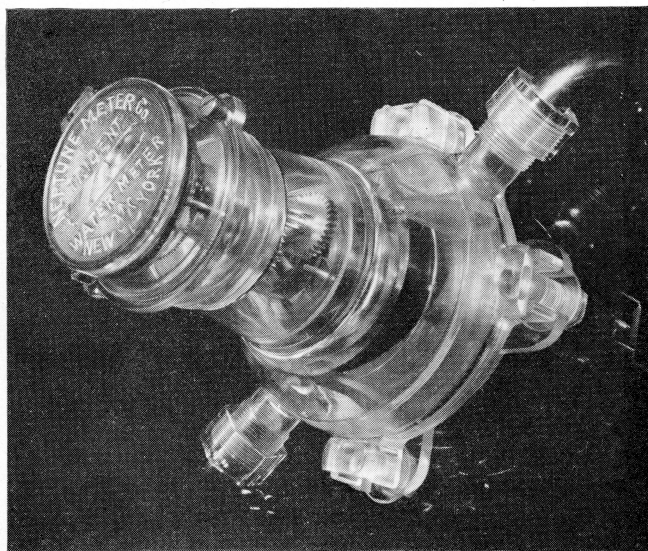
From here on, conservation must play a vital part in our economy. Conservation means the elimination of loss or waste in production; the efficient and wise use of existing materials; improved methods of extraction; the development of substitutes and protectors; and in addition—having mineral re-

sources available when needed, which means stockpiling of those we lack. These features offer a challenge to the mineral industry, to the chemist, to the physicist, and even to the lawmaker. They mean also collaboration and coordination between the producer, the consumer, the research laboratory, the government.

On the mining profession falls the responsibility of seeing that mineral resources are available when needed. To attain this, reserves must be kept up, but since mining depletes them, new ones must be developed. If mining lags, reserves drop. Normally, economic incentives compel mining companies to risk capital to seek new reserves in order to replace depleted ones, but those incentives have diminished under present-day high taxation.

Prevention or elimination of loss or waste of ore during mining comes next in mining conservation. Too often a thin seam of coal is lost during the mining of a thick one; or a layer of marginal ore is left behind in the mining of adjacent profitable ore; or pillars of coal or ore may be left behind to support overlying ground because they are somewhat cheaper than artificial supports. These are unrecoverable losses of minerals that are made to permit a higher profit per ton of the materials extracted and should not be condoned. Again, in open pit mining, too often rock below economic grade is sent to waste dumps, thus eliminating its possible future use. If low-grade materials were segregated, even at a slightly higher cost, they could be saved against the time when higher commodity prices or lower-cost methods of treatment would permit their utilization. Much low-grade bauxite and iron ore could have been saved if this practice had been followed.

Improvements in methods of ore dressing or beneficiation have aided in mineral conservation, and here the metallurgist turns to chemistry and, to a lesser extent, physics. Witness the development of oil flotation in ore dressing whereby pulverized particles of metallic minerals are floated away from waste particles of rock. Under former practice a recovery of 75 to 80 percent of the mineral was all that was expected. With oil flotation, the recovery jumped into the upper 90's and the cost of milling was immediately lowered. The effects were startling; not only was more metal recovered in milling, but it permitted former sub-marginal ore to be



One of the many ways in which plastics can be used to replace strategic metals.

mined and milled profitably. The ore reserve increase was enormous.

Still later came selective flotation with the addition of chemical reagents chosen for each product. Instead of all the metallic minerals, the worthless with the valuable, being concentrated together, they are separated and the worthless discarded. Other such problems still remain to be solved, particularly in the smelting of tin, chrome, etc.

NEW FIELDS TO CONQUER

Oil flotation, sparked by new chemicals, is still finding new fields to conquer. Formerly, it recovered metallic minerals and discarded non-metallic minerals. Now, many desired non-metallic minerals receive a chemical treatment which makes them behave to oil flotation like metallic minerals. This immense field is barely explored and it promises a rich reward.

Zinc is the most troublesome of metals to recover. When it and its companion, lead, enter the smelter together, the lead behaves reasonably and the molten metal mostly sinks to the bottom where it is drawn off. But the elusive zinc seeks a home in the slag and comes to rest in the cold slag dump. Millions upon millions of tons of smelter slag rear their black faces in smelter yards with up to 15 percent or more zinc in them—and we are short of zinc. Economic treatment has eluded the chemist but it should not in the future. Here is a problem of conservation yet to be solved.

For the most part metals are indestructible, although they oftentimes change their form in response to their chemical environment. They may become manufactured into materials that have served their purpose or become worn out, and discarded. They enter the scrap pile, but they remain metals—metals that have been eagerly prospected for, dug out, and processed and become a form of wealth. Should they still be considered as discards? Is it wise to leave them in the scrap pile

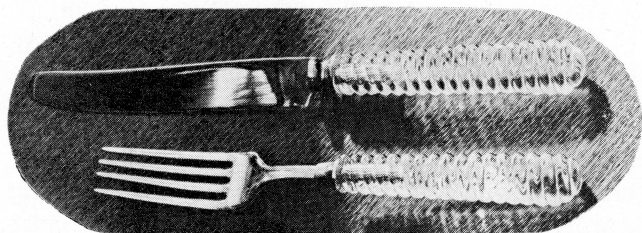
and bend our search for virgin metals to take their place? Much has already been done to reclaim secondary metals, but there is still an unfinished challenge to the chemist and metallurgist to recover economically metals that have already been won from the ground and still persist as metals or metal compounds. Processes of extraction should be developed even if uneconomic in order to be standbys in case of emergency.

Minerals that are becoming scarce should be wisely used for the purposes for which they are best suited. Lead, for example, is a scarce metal and has many uses for which there are as yet no substitutes. But satisfactory substitutes, such as titanium oxide and other materials, have been developed for lead paint. Therefore, it is questionable whether lead, of which our own reserves are short, should be permitted to be used for non-recoverable paint, but rather be conserved for those uses for which substitutes are not available, and particularly for materials that yield scrap lead. Similar arguments may be applied to other minerals such as strategic mica, beryllium, chrysotile asbestos, high-grade bauxite, cobalt, metallurgical chrome, or strategic graphite. This problem needs serious consideration by producer and consumer to effect means whereby this might be achieved.

A new field of mineral conservation that lures the chemist is the development of protectors and inhibitors that help to save metals in the form of special paints, plastic coatings, lacquers, and other chemical compounds. These save minerals in that they displace mineral or metal coatings, and may permit the use of commoner corrosive metals in place of scarcer, non-corrosive metals. Chemistry has already done miracles in providing substitutes for metals, but the field is still wide open. The problem is not that of developing substitutes alone, but also of *persuading the metal consumer to use them wherever possible.* (Italics ours.)

When our chemical colleagues can devise a satisfactory substitute to replace entirely the lead sheathings for electric cables, some 155,000 tons of lead a year (the largest consumption item next to storage batteries) can be diverted to other uses for which lead is short. Moreover, it would ease the drain on our rapidly diminishing lead resources.

But plastics are not the only saver of metals. There are many other substances such as ceramics, glass, and fiber glass, laminates, plywood, and others. Each of these holds promise of effecting greater conser-



Utility and art combine with conservation of resources in this knife and fork set.

—Rohm and Haas Photos.

vation of metals in the future. The chemical laboratory serves conservation better than man-made laws. There is no reason why it should not do so to an even greater extent in the future.

* * * *

Editor's Note—The above material is taken from an article in *Monsanto Magazine* for December, written by Alan M. Bateman, editor of the magazine 'Economic Geology,' and author of a textbook entitled 'Economic Mineral Deposits,' and also many articles.

Note how the author repeatedly stresses the point of 'economical' processes, meaning those processes which assure the operators the greatest profits. He also sees a need to '*persuade the metal consumer to use substitutes for metals wherever possible.*' Technocracy states that this is not properly a matter for decision by persons or groups who are in a position to profit through the use of such products. It is a matter of concern to the entire populace and is therefore one to be determined only on the basis of the general welfare. Our mineral reserves are national and continental assets, and as such should not be subject to private exploitation.

In the coming North American Technate all of

our mineral resources will be under the control of the functional Sequences, in the hands of those chemists, metallurgists, and other scientists best fitted to administer them scientifically, in close cooperation with all the other Sequences concerned with their use, and with Research.

One point the author failed to touch on was the matter of depletion of our mineral resources by wasteful use in cheap, shoddy merchandise that is made to sell with a quick turnover for greater profit. This is a recognized business procedure today, and as such is responsible for a very large part of the waste that goes on all the time. Another great source of inexcusable waste is the continued use of lead in car, truck, and bus batteries. For nearly 40 years European manufacturers have been using nickel-cadmium batteries, which will long outlast any ordinary car. In America this information has been deliberately suppressed.

In the Technate only the finest, most lasting of goods will be made, using to the greatest possible extent only those materials that are readily replaceable, made from recurrent resources. Thus there will be great savings, not only of metals, etc., but of energy as well.—LLB.

The Great Balancing Act

A balanced diet is one of the most vital requirements of good health, but the slender incomes of the majority of American families make it very hard to achieve.

A RECENTLY published cartoon showed a housewife walking a tightrope labeled 'Balanced Budget,' and balancing on her head a huge basket of groceries labeled 'Balanced Diet.' The title was 'World's Greatest Balancing Act.' In these days of inflated prices it is indeed a clever housewife who can serve a balanced diet to her family, and at the same time, maintain a balanced budget.

A balanced diet is one of the most vital requirements of good health, and the one most frequently neglected as we strive to make ends meet in the face of the constantly increasing cost of living. The slender incomes of the majority of American fami-

lies make it very difficult for all but the most expert in home economics to serve well-balanced meals, in sufficient quantity to meet the needs of growing children, at the same time staying within the family income. And the very nature of our social system makes this increasingly difficult as times goes on.

During the days of World War II, records of the draft boards revealed that about one-third of those examined for military service were rejected because of physical or mental deficiencies and that a very high percentage of the physical defects were due to malnutrition in various forms; so it is not a particularly new problem that we are compelled to face. Suppose we examine some of the conditions

that are making it increasingly difficult for American housewives to serve balanced diets on balanced budgets.

In the majority of families it is the housewife who does the spending of the family income and thus she, probably more than her husband, has impressed on her the unpleasant fact that the cost of living has been inflated almost beyond reach of the average purse. Month after month we see that familiar headline in our papers, 'Cost of Living Hits All-Time High,' and there seems to be no relief in sight yet.

INCOMES WON'T STRETCH

In July, meat prices swept to new highs. Clothing and shoes are, in some cases, double pre-war prices, and rents, as we all know, are out of sight and going higher. Whenever high production seems to offer a chance of relief, government steps in and buys the surplus in order to prevent any drop in prices. The latest was in this year's potato crop which, like last year's, has been far greater than consumer demand can absorb at prevailing prices. So a large part of the crop was bought by U. S. taxpayers for \$2.75 a hundred pounds and resold for 1 cent per hundred pounds to commercial users in order to hold up market prices. In the five years from 1943 to 1947, the government lost \$170,169,000 on this one crop alone. Similar price supports are holding up prices on virtually all farm products while American housewives are exercising their ingenuity in various ways to make the family income stretch far enough to provide at least the necessities of life.

'But,' you say, 'incomes are also rising.' To some extent this is true, but they are not rising fast enough to keep up with rising prices. According to Labor Department experts, twenty million labor union members are winning third round wage increases, but they are still barely breaking even with the high cost of living. At the same time, roughly forty million non-union workers are losing ground in the battle against inflation, since wages of unorganized workers generally lag from three to six months behind union gains.

Even in the higher paid industries like steel, wages are not equal to the needs of the average family. A budget for a family of four, set up by the Bureau of Labor Statistics, requires an annual wage of \$3,250. This sum amounts to \$1.76 an hour provided the wage earner works a steady 40 hours

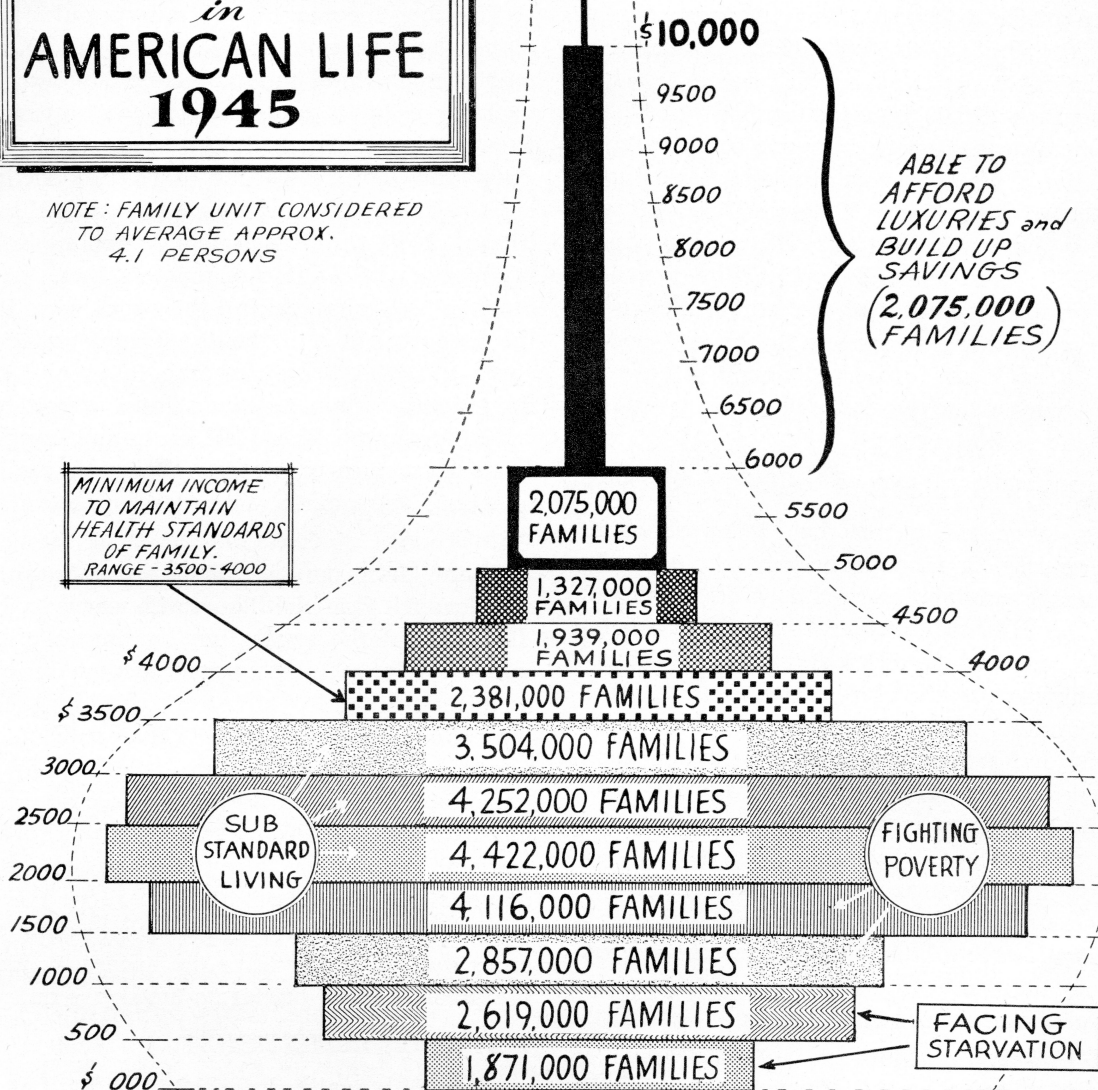
a week throughout the year. Yet the average hourly earnings in the steel industry last year were only \$1.52½ per hour. This means that every pay envelope was 23½ cents an hour short of the amount needed to maintain a family in minimum decency. And a recent survey of white collar workers indicates that earnings of this group quite generally come in the lower brackets, considering strictly cash payments for services. One-fifth of those included in the survey were found to receive less than \$25 a week, a third less than \$30, and nearly half less than \$35. The survey covered 23,261 white collar workers in 222 representative companies.

It is little wonder, under the circumstances, that one-fourth of America's families slip from that tight-rope marked 'Balanced Budget' and plunge downward into debt. Yes, according to a recent survey conducted for the Federal Reserve Board by the University of Michigan Survey Center, one out of every four American families is going into debt. They are spending money faster than they can earn it. In 1946, the report said, this was especially true of families earning \$3000 or less; but today, it added, an increasing number making up to \$7500 find themselves in the same fix. How, then, can we expect the housewife whose husband is making the \$2,500, after taxes, which is the present average for a factory worker with two children, to make ends meet?

According to the U. S. Department of Commerce, the average American family owes its next six weeks' income. Outstanding consumer debt is at an all-time high and going higher. In February of this year, the average family owed \$323 to business organizations—not counting whatever it owes to doctors, dentists and the independent corner store. Savings of many families have dried up. War bonds have long since been cashed to meet the rising cost of living. Many a housewife has lost her balance and has either given up any attempt at balancing her budget, or is cutting down on her buying. Since nearly half the family income must go for food, she finds it necessary to cut here as well as in other less necessary items. For instance, it is reported that milk sales are down below the 1946 period despite higher supply. As the price of meat rises to new highs, fewer families are going to be able to buy the better cuts. But hamburger is not the answer—it also is near the dollar-a-pound mark in many cities. Mrs. American housewife will be able to serve her family very little meat. An-

Income LEVELS in AMERICAN LIFE 1945

NOTE: FAMILY UNIT CONSIDERED
TO AVERAGE APPROX.
4.1 PERSONS



SOURCE: U.S. Bureau of Census MAY 1947 P-S No.22

(NOLTIE)

other cartoon, in the *Saturday Evening Post*, made this point very well, too. A mother and daughter stood looking concernedly into their meat grinder. The daughter said in a bewildered way, 'It was a dollar's worth. What could have become of it?'

And the lag between the amount necessary in

order that we may enjoy a balanced diet and the amount that we can afford to spend is becoming greater. Constant pay raises only aggravate the situation and, if you stop to consider the nature of our business system, the reason should be obvious. Wages are the greatest item of cost in the manu-

facture or processing of any commodity. Profits are usually figured at a percentage over and above the cost of production and therefore, as the cost increases, the increase in the actual amount of dollars and cents of profit is larger in proportion. Let's take a simple example to illustrate our point:

Suppose the labor cost involved in the production of a certain article is \$5 and other expenses amount to, say \$7.50. That's a total of \$12.50. The manufacturer expects a profit of, say, 20 percent. That makes the price \$15.00 and the cash profit \$2.50. Now let us suppose a wage increase of 20 percent is given the workers. The cost of production is now labor \$6.00, other expenses \$7.50, total \$13.50. 20 percent profit will now amount to \$2.70 and the price will be \$16.20. Thus, while the amount of wages has increased only \$1, the cost of the article has risen \$1.20. The consumer has gone in the hole 20 cents. Multiply this on a national scale and it is easy to understand why rising wages will never overtake the increasing cost of living.

THE HOUSEWIFE'S DILEMMA

There is, of course, a way by means of which the manufacturer, or food processor, can not only increase wages and maintain the same price, but may even be able to lower the price. He can install better and more efficient machinery—automatic machines that are able to turn out his product faster and in greater quantity with the same manpower. If he does this, the market is soon glutted and he must close down his factory until the stockpile has been reduced. Or, he can maintain his former rate of production and lay off the men that are no longer necessary. And this, while it increases unemployment, is the course usually followed by the astute businessman, anxious to stay in business. It results in what we call technological unemployment and on the Continent of North America it is a rising trend.

This, in part, explains the housewife's dilemma. She realizes better than anyone the necessity of providing a balanced diet for her family. It is a well-known fact that children in rich families average an inch taller and three pounds heavier than children of the same age in poor families, and this fact is credited to the difference in the diet between rich and poor families. We pride ourselves on being the best-fed nation in the world, but do you know that only one-third of the American population gets all of the necessary food elements in its diet? Do

you know that a third of our population actually suffers from hunger, from lack of nutrition? Do you realize that in consumption of milk and milk products we rank thirteenth among the nations of the world? That in the consumption of meats we rank sixth? And in protein consumption, animal and vegetable, twelfth?

The low income of half our population is not, alone, the reason for these conditions. Our government has slighted the problem of human nutrition in federal appropriations and organization. The Department of Agriculture's year book for 1939, *Food and Life*, is divided into two sections, one called 'Human Nutrition' and the other 'Animal Nutrition.' More than twice as much space in the book is given to the feeding of animals as to the feeding of people. Again, during the fiscal year 1946-1947, the Department and the land-grant colleges spent some \$12,000,000 on research in animal diseases, animal production problems, and animal nutrition, but only around \$2,500,000 on human nutrition and home-economics problems. We might well ask the question: 'Are our children less important than our hogs?'

What, then, can we do to raise our nutritional standards? Can the housewife serve a balanced diet and, at the same time, maintain a balanced budget? Those in the upper income brackets will have little difficulty, of course, providing they know the rudiments of nutrition. Those with incomes between \$3500 and \$7500 can do it if they exercise reasonable care. But for the 43 percent of our families below the \$3500 level, the problem presents increasing difficulties. They will have to resort to expedencies. They will have to serve meat substitutes. They will have to go without other things in order that they may have the necessary food. And the pinch will get tighter as time goes on.

WHY SUCH CONDITIONS?

One might well ask why, in this land of potential plenty, such conditions should exist, but those who have studied our social trends know the answer. As the Price System on this Continent goes into its last days, these conditions will be aggravated because the foundation of our present form of society has been undermined by the rising tide of abundance created by the combination of modern technology and abundant resources. The values of the Price System are being destroyed and we are faced with the necessity of changing our methods of so-

cial operation. A scientific, technological method of production requires a similar method of distribution, and this we lack in our present social system. We are set up to produce and distribute scarcity only, and the threat of abundance is resulting in the conditions we have outlined. Within the framework of this obsolete Price System, there is no solution.

America faces the necessity of making the first great social change in history—the first clean break from a Price System method of operation. We must adopt, in its place, a scientifically designed and directed social system having as its sole objective the production and distribution of abundance. Our system of distribution must be such that all shall have equal claim to the abundant production we can achieve once we have removed the interference controls of this Price System.

Technocracy has the design for this New America of abundance and security and we urge your immediate investigation. It is a design unique in the social history of the world; a design that borrows nothing from the ideologies of other nations but is completely American in concept. You owe it to yourself to investigate—NOW!

—Radio Broadcas Staff, Los Angeles.

NAIVETE

THE irony of our present situation lies in the fact that 'they' get away with it. The people of the United States who are putting up the money to keep industry solvent are very naive. They have been made to believe that our 'foreign benevolence,' or our rehabilitation program is being carried on for the benefit of the 'mass in misery'; not to keep American industry from bankruptcy.

Giving the devil his due, that is the only way in which the Price System can gain a little more time. We must find some place to dispose of the products of our machines or they will have to be stopped before very long, and that will not be good for business. Incidentally, it will be very tough on the wage-earner and others dependent on him. So we 'find' some country that is willing to accept a loan from us and is willing to buy arms, ammunition, and supplies from U. S. big business. (You know, war destruction is the 'best' method of disposing of goods on a scale great enough to keep our Price System operating for yet a little while.)

Here is the suggestion of certain Army men to the representatives of business (State Dept.) as published in the December 17, 1948, issue of the U. S. News and World Report: 'Army men estimate that it would take 50 to 75 divisions, perhaps as many as were sent to Europe, to defeat the Chinese communists.' It cost us over 300 billion dollars in World War II to ship those divisions to Europe and elsewhere and protect them. The article continues: 'and then those divisions would have to be gotten over seas' . . . (Notice the potential shipbuilding program?) 'Help on a smaller scale to the Nationalist Government of China would be useless.' A plan of debt creation is in the embryo state. Do you sense the magnitude of it?

Let's go a little farther with the article: 'Large quantities of equipment have been given to the Nationalists only to be found later in the hands of the communists, or, during World War II, in those of the Japanese. 'In a recent three month period, not including their recent victories, the communists seized 236,000 rifles, 14,000 machine guns, 26,000 sub-machine guns, and big stores of ammunition. In some cases, whole arsenals were left intact by Chiang's Army.'

Never is the armament business better than when you are supplying arms to both sides. How about the millions that get killed and crippled by war? Who cares? 'Business is business.'

—E. R. NePage, 12247-3.

TECHNOCRACY PAMPHLETS

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COVER PICTURE.—Grand Coulee Dam Spillway, Columbia Basin Project, Washington.—Photo by Bureau of Reclamation.

Developing Trends

GROUNDWORK FOR INDICTMENT

NOTE THE STATISTICS on infant mortality by income groups. Where the per capita buying power of the group is \$1,000 or over, the mortality rate is 36.5 per 1,000. When the income per capita drops to the \$800 to \$1,000 class, the mortality rises to 39.4; at \$600 to \$800, the mortality reaches 43.8; when the income rate is under \$600, the mortality rate is 48.1 per 1,000. Needless to say, the lower the income, the less medical service one is able to purchase. . . .

The portion of the medical fraternity which brags that America is getting the best medical care in the world is hiding a lot of the truth under the well-known bushel. No matter how fine the care America may be getting compared to the rest of the world, it is way below what is needed in this country.

For American families whose income is \$2,000 or less (and there are a lot of such families), there is only 67 percent of the needed hospital service available, only 36 percent of the needed medical care, and less than 10 percent of the needed health examination program. . . .

Doctors, dentists and hospitals are not evenly distributed through our land. There is one physician for every 1,400 people in South Carolina, and one for every 570 in California. There is one dentist for every 5,263 persons in Mississippi, and one for every 990 in Oregon. There is one hospital bed for every 749 persons in South Carolina, and one for every 154 persons in Wisconsin. The reason? Lack of income in South Carolina and Mississippi doesn't provide good business for medical and dental men. These professional men tend to settle in states where a better living can be secured.

—Alfred S. Harvey, Ph. D.,
in Building Service Employee, Dec.

—This alone is enough to indict the Price System as a complete failure. How much more will it take to convince YOU that you had better demand Technocracy before it is too late?

FIRMS SEEK JOBS FOR MEN LAID OFF

CLEVELAND, Dec. 23.—(AP)—Two Cleveland-area manufacturing concerns are helping find other employment for workers they have laid off.

The Apex Electrical Manufacturing Company of Cleveland and the Permold Company of nearby Medina have decided that employees cannot be discarded casually because there is no work.

Apex Electrical, which normally employs approximately 1,000, laid off 300 workers two weeks ago and 400 more are scheduled to be dropped January 1. The company said the cuts were made necessary by government restrictions on credit.

The Permold Company said it was forced to lay off 75 workers from a payroll of 350 because of slackening consumer demand for household appliances.

The plant closed today for a nine-day period and company President Everett G. Fahlman has put his entire personnel department to work helping employees to find temporary jobs.

—Any 'prosperity' that has to depend on government credit for business, and on temporary jobs found for men laid off of regular jobs, is hardly on a firm foundation. Where do we go from here? Ask Technocracy.

CRANBERRIES GLUT MARKET

CRANBERRY GROWERS in general are concerned over the problem of marketing. With the prospect of some 357,000 barrels unsold from the 1947 crop with a new crop coming on, there could be over a million barrels of cranberries to be sold in 1948. While this appears as a great problem, Mr. Urann expressed the view that an aggressive marketing program and stronger producer cooperation can solve the problem and in the long run bring stability to the cranberry market.—Washington Farmer.

—We wonder how long those million barrels of cranberries would last if they could just be used where they would do the most good, without having to consider the matter of price. Obviously, the first consideration is not feeding people, but making money on the crop. And we boast of our great American intelligence!

UNEMPLOYMENT ZOOMS UPWARD

OLYMPIA, Wash., Dec. 22.—The number of Washington job seekers filing claims for unemployment insurance continues to increase unabated. . . . During the week ending Dec. 18, workers filing claims for state insurance benefits numbered 33,917 while 8,457 veterans filed under the Servicemen's Readjustment Act. The total of 42,374 was nearly four thousand more than that reported in the previous week. . . . Average payment to claimants was \$18.91. . . . Payment of benefits was postponed or denied to 452 claimants.—Wash. State Employment Security Dept.

—Considering the rate of payment and the fact that it is payable at most for only 26 weeks in any one year, it is hard to see where the 'security' comes in. How many more in this category will it take to make them wake up to the fact that there can never again be any security for them under the Price System?

RACIAL DISCRIMINATION

'IT IS NOT in the field of spontaneous human relationships that trouble (between races and persons of different color) occurs in Washington,' the report (National Committee on Segregation in the nation's capital, composed of 87 civic leaders from all sections of the country) says, 'but on a high-policy level where the segregation of the Negro is planned as a matter of good business, and investments are made in the denial of his equal right to own property. It is not the poor whites who set the pattern, but men of acknowledged culture and refinement, the leaders of the community.'

While 'officially' the city of Washington is managed by three commissioners appointed by the President of the United States, 'unofficially' it is run by the dominant real estate, commercial, and financial interests, formally organized as the Board of Trade, according to the report.

'These are the special interests which have planned the segregation of Negroes in housing, jobs, theatres, restaurants, parks, and playgrounds,' the report states.

—Christian Science Monitor, Dec. 13.

—Since the reasons for racial discrimination are largely economic, so the answers to such problems will be found simplified when Price System values have been liquidated. Here, too, the only solution is in Technocracy's scientific design for the operation of our social mechanism.

760,000 VETS TO WINTER IN 'TIN FOXHOLES'

NEW YORK.—More than 760,000 veterans and their wives are digging in again for their third winter in "tin foxholes."

That's what they've dubbed those Quonset huts which along with other types of emergency dwellings have been their homes since the fall of 1946.

A small percentage of the original tenants has managed to go elsewhere. But the turnover is described as "almost negligible." And the backlog of veterans' families urgently needing housing of any kind has remained so overwhelming that the picture as a whole is just about what it was when the emergency program began.

Take the New York City area, for example, where 10,255 families live in Quonsets and other kinds of metal, plywood, or frame prefab units of the strictly temporary type.

Here the need is so great that the few vacancies that do develop go only to the top-priority "desperate" families.

"Name any variation of housing woe—families evicted with a new baby due momentarily, sick children, injured fathers, folks found living in automobiles or coal bins—we have them all," said Alex Moffat, chief of the city's temporary housing division.

"This desperate list has remained about 600 strong ever since the war's end. Every day or so, some of these people find some way to manage, and we strike them off the list. But new emergency cases keep pouring in, and the total stays about the same."—Asso. Press.

—Happy New Year, Veterans! Too bad, though, that the Price System press denies you information about Technocracy's plans for housing. Better investigate it for yourselves.

PEP TALKS TO GIVE SUPPORT TO PRICES

WASHINGTON.—(NANA)—Watch for "pep talks" from administration leaders that every thing is O. K. with the nation's boom.

The idea is to prevent the spread of a mass psychology that the nation's postwar surge has run its course. Officials feel such thinking would hasten the growth of a downward trend, which some business leaders believe already has set in. Some are openly worried over the slowdown.

Note: The speechmaking will be done by political big-wigs and cabinet officials. Government career economists make no bones that the boom's peak has been reached and prices and production will be leveling off from now on.

—Things must be more serious than even we thought when the government sets out deliberately to deceive the people.

Remember this item next time you read or listen to this sort of propaganda.

RECORD USE OF FARM MACHINES

CALIFORNIA FARMERS this year turned to machines in record numbers to gather their crops, the University of California reported yesterday.

The University's College of Agriculture estimated that 400 mechanical pickers were used in the cotton fields, as compared to 70 or 80 last year. Each machine does the work of 40 experienced handpickers.

Mechanical harvesters do more than two-thirds of the State's sugar beets, compared with one-fifth for the rest of the country.

In rice growing, machines were used from start to finish. A landplane levels the ground. Seeding and fertilizing are done by airplanes. A combine cuts and threshes more

than 90 per cent of the crop. Manhours per acre have been reduced from 45 to 15.

Almond harvesting is being accomplished by a machine that brushes up almonds brought down by men using pneumatic knockers.

Field tests have been made with a harvester that cuts, picks and sacks onions at the rate of four sacks a minute.

A tomato harvester is expected to be ready for tests in 1949.—San Francisco Chronicle Dec. 13.

—So the drive to eliminate man-hours continues to snowball.' Men cannot possibly put in enough man-hours to earn enough on this basis to buy the products of the machines they operate; yet we insist on retaining the Price System, in which purchasing power is distributed chiefly on a man-hour basis. It just doesn't make sense, does it?

JOBS BEGINNING TO DISAPPEAR IN EASTERN PLANTS

NEW YORK.—This is grim news, but true; and it won't do any good to look the other way. Jobs are beginning to disappear.

Top executives of the nation's biggest manufacturing outfits have told me in the past few days they fear they must lay off thousands in the next six months. Stuff is just not selling in the shiny new stores—which opened or refurbished so brightly right after the war.

Little cities in Connecticut's industrial belt are so alarmed over hundreds of jobless, they're calling emergency parleys to see what they can do for their people. . . . Looks like the time's here for President Truman to sit down with business and labor leaders before this thing starts snowballing.—Victor Riesel, in Seattle Times, Dec. 19.

—The time is far past when it would do any good to talk things over. All the old palliatives have already been tried, but the plight of the Price System continues to worsen. Only a complete change in our method of operation can have any effect. The situation is indeed grim, but the future of North America can be very bright if we will make that change—to a scientific distribution of our already available abundance.

ECA'S TROUBLES. SO SORRY, PLEASE!

WASHINGTON.—Foreign-aid officials have found that giving away money isn't as easy as it might seem. After eight months of operation under the Economic Cooperation Act of 1948, officials have found some changes they'd like made in the law. Most are technical. A few are certain to raise a storm of protest from groups affected. They involve such matters as who transports goods to Europe, who insures the goods, and how many Marshall Plan dollars shall be directed toward what American industries. . . . several hot debates may develop in Congress over various technical points on handling of ECA aid. For example, there's the current controversy over whether U. S. shipping firms shall be guaranteed the right to haul at least 50 percent of all ECA goods. . . . Administrator Paul Hoffman asserts that coal cargoes to France cost \$4.50 more per ton to carry in American ships than in foreign . . . etc., etc.

—Wall Street Journal, Dec. 14.

—Who said 'Give away'? How much of this sort of thing would be going on if there were not plenty of assurance that it was going to be good for business? YOU guess!

OLD FOLKS AT HOME

(Continued from Page 2)

work they have put in. Each one will give the required 20 years period of service, from the age of 25 to 45, and after that they will continue to receive the same high standard of income as long as they live.

Thus, in the Technate, the older generations will continue to live in dignity and security, entirely independent of their offspring except on the foundation of mutual respect and affection. If Grandma wants to act as baby sitter for her grandchildren it will be because she enjoys doing it, and not from any sort of compulsion. The ridiculous picture of several generations living together in enforced association because of economic dependence will then appear in its true light for what it is—a free enterprise Price System nightmare.

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TECHNOCRACY

North America's Only Social Dynamic

WHAT?

Technocracy is the only North American social movement with a North American program which has become widespread on this Continent. It has no affiliation with any other organization, group, or association either in North America or elsewhere.

The basic unit of Technocracy is the chartered Section consisting of a minimum of 25 members and running up to several hundred.

It is not a commercial organization or a political party; it has no financial subsidy or endowment and has no debts. Technocracy is supported entirely by the dues and donations of its own members. These widespread activities of Technocracy are performed voluntarily; no royalties, commissions or bonuses are paid, and only a small full-time staff receives subsistence allowances. The annual dues are \$6.00 which are paid by the member to his local Section.

Members wear the chromium and vermilion insignia of Technocracy—the Monad, an ancient generic symbol signifying balance.

WHEN?

Technocracy originated in the winter of 1918-1919 when Howard Scott formed a group of scientists, engineers and economists that became known in 1920 as the Technical Alliance—a research organization. In 1933 it was incorporated under the laws of the State of New York as a non-profit, non-political, non-sectarian membership organization. In 1934 Howard Scott, Director-in-Chief, made his first Continental lecture tour which laid the foundation of the present nation-wide membership organization. Since 1934 Technocracy has grown steadily without any spectacular spurts, revivals, collapses or rebirths. This is in spite of the fact that the press has generally 'held the lid' on Technocracy, until early in 1942 when it made the tremendous 'discovery' that Technocracy had been reborn suddenly, full-fledged with all its members, headquarters, etc., in full swing!

WHERE?

There are units and members of Technocracy in almost every State in the U. S. and in all provinces in Canada, and in addition there are members in Alaska, Hawaii, Panama, Puerto Rico and in numerous other places with the Armed Forces.

Members of Technocracy are glad to travel many miles to discuss Technocracy's Program with any interested people and Continental Headquarters will be pleased to inform anyone of the location of the nearest Technocrat unit.

WHO?

Technocracy was built in North America by North Americans. It is composed of North American citizens of all walks of life. Technocracy's membership is a composite of all occupations, economic levels, races, and religions which make up this Continent. Membership is open only to North American citizens. Aliens and politicians are not eligible. (By politicians is meant those holding elective political office or active office in any political party.)

Doctor, lawyer, storekeeper, farmer, mechanic, teacher, preacher or housewife—as long as you are a patriotic American—you are welcome in Technocracy.

MILLIONAIRES JAM HONGKONG

HONGKONG.—Visiting Hongkong from China is like going into another world, a world that is doing its best to ignore the dangers inherent in its geographical proximity to China's civil struggle.

There probably are more millionaires per square mile in this British Crown colony than in any other place in the world. They've come here from all parts of China, bringing their family retinues and their millions with them. They've brought their worries, too.

Not so long ago, all classes of Chinese openly vented their resentment of colonial rule in Hongkong. It seemed stubbornly anachronistic in view of the general withdrawal of foreign extraterritorial rights after the Second World War.

But today one overhears this remark in the swank Parisian grill: "Thank God the British kept Hongkong. It's the only decent place to live left in the Orient."

So many share this opinion that Hongkong has become a city jammed with moneyed refugees. Despite extensive new building programs, it costs \$5,000 just for the "key" to an apartment. Bars do a thriving business from dawn till well after dusk and swank hotels are jammed.

—Seattle Times.

NEW MACHINE PUTS TELEGRAPH OFFICE ON CORNER OF BUSINESSMAN'S DESK

NEW YORK.—(AP)—Western Union gave a demonstration today of a new machine that gives the businessman a telegraph office on the corner of his desk.

Called "Desk-Fax," the compact facsimile transmitter and receiver is not quite as wide as a portable typewriter but slightly taller.

To send a telegram, you type it or write it in pencil on a special blank furnished with the machine, wrap the telegram around a cylinder and press a switch. The rest is automatic and the machine cuts itself off, after the message has been transmitted into the nearest Western Union central office.

When there's an incoming telegram, a buzzer sounds. You turn on the switch and the machine receives and shuts itself off automatically but the buzzer sounds again until you press a button acknowledging the telegram.

Western Union officials said that even more important than the convenience of the machine was the elimination of messenger travel time at both sending and receiving ends.

They said the new device, in conjunction with the automatic switching system being installed, ultimately would make it possible for a telegram to reach the desk of the addressee in San Francisco in less than 10 minutes from the time it was put in the machine by the sender.

—Christian Science Monitor.

NEW FIREPROOF AGENT REVEALED

PORTLAND, Ore., Sept. 14.—Paints and cloth which not only are fireproof but which will block or smother flames already started will be among the strange products of a great new industry, the American Chemical Society was told yesterday.

These new substances will make possible hundreds of revolutionary products such as lighter and more powerful electric motors, plastic substances which resist heat, light and fire, and containers which will not corrode or rust.

All this will be feasible, said Dr. J. H. Simons, of Pennsylvania State College, through development of a method of mass-producing fluorocarbons, a tricky new family of chemicals first produced during the Second World War.

Fluorocarbons themselves are not new, but up to now their cost has been exorbitant. Dr. Simons, head of a fluorine research project at Penn State, told the Chemical Society that ways had been found to produce the substance cheaply.

The fluorocarbons are compounds of fluorine, the most

violently active chemical element, and ordinary carbon. When mixed with carbon, the fluorine loses its violent nature and helps to form a stable, fire-fighting and rust-resisting substance.—Seattle Times.

TURKEY TO GET TWO U. S. DESTROYERS

LONDON, Dec. 23.—(AP)—Two battle-tested American destroyers, the Buchanan and McCalla, are being transferred to the Turkish navy, U. S. Navy headquarters here said today.

The destroyers are being reactivated at the naval shipyard at Charleston, S. C., under an enactment approved last April authorizing additional funds for the Greek-Turkish aid program.

(In Washington, the Navy said that 15 other vessels have been transferred recently to Turkey. They were four submarines, one tanker, one repair ship, eight mine sweepers and one anti-submarine net laying vessel.)

—Anyone who is still naive enough to believe that our aid to Europe is purely altruistic need only ask himself how much the above listed 'donations' are going to raise the standard of living of the Greek citizens.

SPRAYED BINS MAY PROTECT STORED GRAINS

PULLMAN, July 17.—(UP)—A Washington State College entomologist has proposed a plan which he says will save the nation's grain farmers \$600,000,000 this fall.

David H. Brannon proposed spraying empty grain elevators and bins thoroughly with five per cent DDT in kerosene or oil, or two pounds of 50 per cent wettable DDT powder to 100 gallons of water. Doing this before bins are filled with the newly-harvested 1948 crop will, he said, save one out of every 20 bushels of farm-stored grain from damage by insects.

Brannon said the mixture, which does not leave a residue, should be applied only after bins have been thoroughly cleaned and swept down. And stored grain should be inspected frequently and fumigated if signs of infestation appear, he said.

TECHNOCRACY MAGAZINES

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Technocracy Digest, 1166 West Georgia St., Vancouver, B. C., 25 cents a copy; \$2.50 for 12 issues; \$4.50 for 24 issues; \$6.50 for 36 issues.

The Technocrat, 8113 So. Vermont Ave., Los Angeles 44, Calif. 20 cents a copy; \$2.00 for 12 issues.

Technocratic America, 329 Harvey Drive, Fontana, Calif., mimeo.; 5 cents a copy; 50 cents for 12 issues.

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**IN THE OLD WORLD OF HUMAN TOIL AND HAND
TOOLS, THE ONLY WAY TO PRODUCE MORE IS TO
WORK MORE PEOPLE MORE HOURS; BUT IN THE
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PEOPLE FEWER HOURS.**